ABSTRACT

A system increases the capacity of a CDMA network having a plurality of cell sites. The system defines a pool of frequencies available for assignment, and assigns one of the available frequencies to each of the cell sites so as to minimize the number of neighboring cell sites assigned a same one of the available frequencies. By deploying different frequencies in the cell sites, the amount of interference caused by neighboring cell sites reduces. As a result, the capacity of each of the cell sites operating at a single frequency can be increased, so long as there remains sufficient power to reach the mobile units operating within the cell site. The system attains maximum benefits when the cell sites are located close together and the propagation exponent is low (for example, 10-20 dB/decade).